



**A2-7312**

**A2-7322**

**A2-7342**

**User Guide V2.00**

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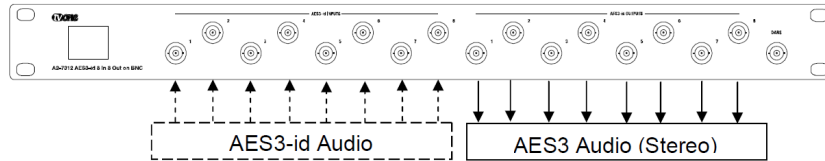
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## About your A2-73xx

A2-7300 Series units are high quality audio format converters which provide maximum format flexibility for the audio inputs and outputs of the C2-7310 HD Audio/Video Processor.

### A2-7312

The A2-7312 provides an HD-44 interface to 16 AES3-id (8-in/8-out) and a DARS reference input on BNC's mounted on a 1RU panel via a 1.5 m (4.5') interconnect cable. The connectors may be separated from the panel if system wiring requirements dictate.



#### Audio inputs and outputs

Visible in the images, the units have:

- 8 x input channels AES3-id on BNC
- 8 x output channels AES3-id on BNC
- DARS reference on BNC

#### HD44 Interface

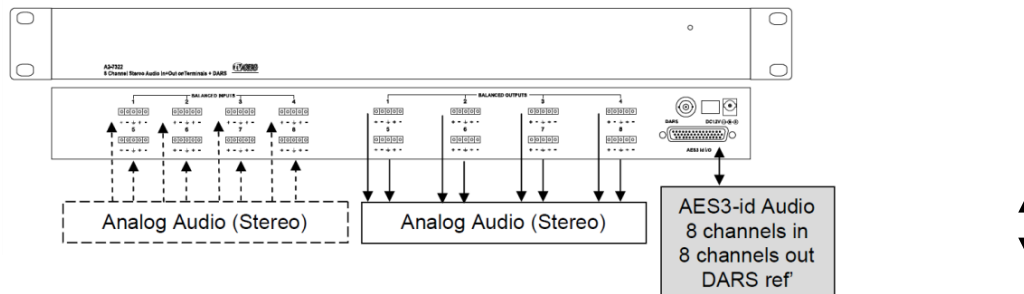
The unit connects directly to the C2-7310 (or other A2-73XX units) via a 44 pin D-type connector, with 8 AES3-id input channels, 8 AES3-id output channels and the DARS reference.

#### Power Supply

The A2-7312 does not require any power supply, as it is breakout cable.

### A2-7322

The A2-7322 provides an HD-44 to 16 Analog Stereo (8-in/8-out), balanced or unbalanced, on terminals and a DARS reference input on a BNC connector. This unit contains eight high quality stereo analog to AES3-id converters, plus eight high quality AES3-id to stereo analog converters. The audio sample rate is user adjustable in stand alone mode using.



#### Audio inputs and outputs

Visible in the images, the units have:

- 8 x input channels (8 stereo pairs) analog audio on XLR
- 8 x output channels (8 stereo pairs) analog audio on XLR
- DARS reference on BNC

### Switchable sampling rates

The A2-7322 has a DIP switch setting on the rear of the unit which allows the sampling frequency to be set at the following rates: 48, 44.1, 32 and 96 kHz. For the required position settings see section 9.

### HD44 interface

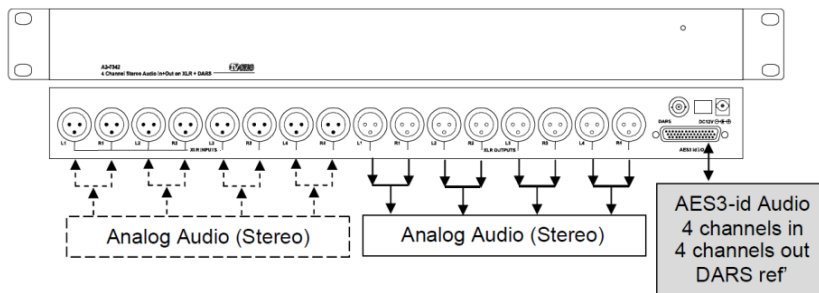
The unit connects to the C2-7310 (or other A2-73XX units) via a 44 pin D-type connector, via a dedicated cable supplied with unit, connecting 8 AES3-id input channels, 8 AES3-id output channels, the DARS reference and communication between the units.

### Power supply

The A2-7322 requires a 12V dc input with at least 3 Amps.

## A2-7342

The A2-7342 provides an HD-44 to 8 Analog Stereo (4-in/4-out) on XLR's and a DARS reference input on a BNC connector. This unit contains four high quality stereo analog to AES3-id converters, plus four high quality AES3-id to stereo analog. The audio sample rate is user adjustable in standalone mode using DIP.



### Audio inputs and outputs

Visible in the images, the units have:

- 8 x input channels (4 stereo pairs) analog audio on XLR
- 8 x output channels (4 stereo pairs) analog audio on XLR
- DARS reference on BNC

### Switchable sampling rates

The A2-7342 has a DIP switch setting on the rear of the unit which allows the sampling frequency to be set at the following rates: 48, 44.1 and 32 kHz. For the required position settings see section 9.

### HD44 interface

The unit connects to the C2-7310 (or other A2-73XX units) via a 44 pin D-type connector, via a dedicated cable supplied with unit, connecting 4 AES3-id input channels, 4 AES3-id output channels, the DARS reference and communication between the units.

### Power supply

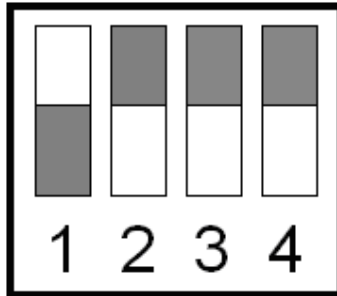
The A2-7342 requires a 12V dc input with at least 3 Amps.

## DIP switch setting for A2-73XX

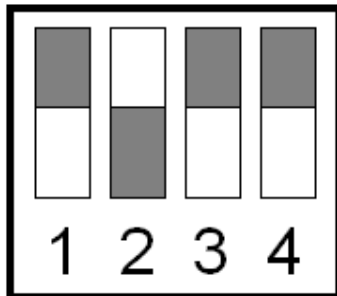
The A2-7322 and A2-7342 can have the sampling frequencies set by the position of DIP switches on the rear of the units when operating remotely (i.e. when not connected to a C2-7310).

The currently supported sampling frequencies are: 48, 44.1 and 32 kHz, plus 96 kHz for the A2-7322.

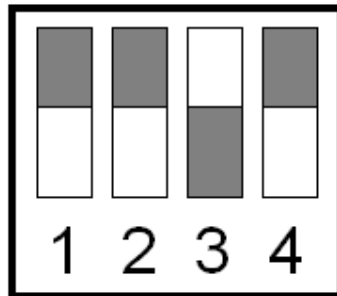
The positions for the DIP switches are as follows:



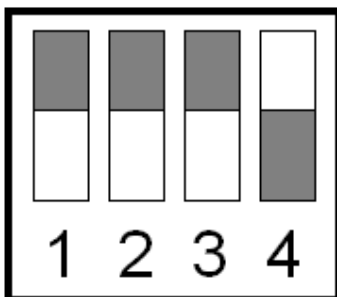
DIP Switch 1 Down Only Sets  
Sampling Frequency to: 96 kHz



DIP Switch 2 Down Only Sets  
Sampling Frequency to: 48 kHz



DIP Switch 3 Down Only Sets  
Sampling Frequency to: 44.1 kHz



DIP Switch 4 Down Only Sets  
Sampling Frequency to: 32 kHz

Note: An invalid DIP switch position will blank all outputs.

## HD44 breakout cable

The HD44 to HD44 cable supplied with the A2-73XX unit, which links it to the C2-7310 or other A2-73XX units, is only available from tvONE.

Should an additional or replacement cable be required, contact tvONE.

tvONE Part Number: ZA7392-2

Description: HD44 (M) to HD44(M) Crossover - 2' (0.6m)

## Troubleshooting

If the troubleshooting articles below do not help, contact tvONE support. Contact details for your region are at the end of this guide.

### My unit does not power up

When powered, a power indicator LED illuminates on the front panel of the A2-7322 and A2-7342 only. If this is not the case, check that the power supply is plugged in and is the correct voltage and polarity.

### No audio output

For the A2-7342 and A2-7322, the DIP switches might be set incorrectly. Check that the DIP switches are in the correct position for your sampling rate.

Read more on page 3.

## Returning a product for repair

You can request to return your product to tvONE™ for repair. When you contact tvONE support, have the following information ready.

- Product type
- Serial number of the faulty unit (this is on the underside of the unit)
- Full details of the issue
- Invoice number (if available)

Contact tvONE support for your area.

- Customers in North, Central, and South America (NCSA), email [tech.usa@tvone.com](mailto:tech.usa@tvone.com).
- Customers in Europe, the Middle East, and Africa (EMEA), email [tech.europe@tvone.com](mailto:tech.europe@tvone.com).
- Customers in Asia, email [tech.asia@tvone.com](mailto:tech.asia@tvone.com).

### EMEA and Asia

Customers in EMEA and Asia receive an RMA Request form from tvONE support. Complete the form and return it to tvONE support for your area.

### All customers

tvONE support decides if your product needs to return for repair, and, if needed, provide a return authorization number.

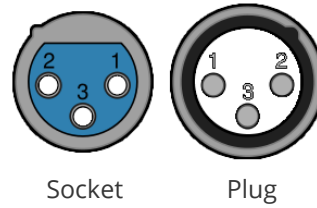
Send your product to tvONE by insured carrier or registered mail. Write your return authorization number on the outside of the packaging, and on any documents you send with your product.

You must arrange and pay for shipping and insurance. Products in transit are your responsibility. tvONE does not accept responsibility for products lost in transit.

Do not return a product for warranty repair without a return authorization number. tvONE will not repair your product.

## Connector pinouts

### XLR

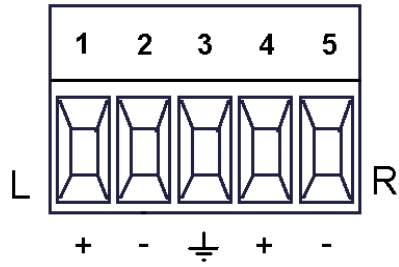


1. Chassis Ground (cable shield)
2. Normal polarity ("hot" signal input)
3. Inverted polarity ("cold" signal input)

### HD44 Connection at A2-73XX Unit

PIN#	SIGNAL	PIN#	SIGNAL
1	AES3-id Input Channel 1	23	Ground
2	AES3-id Input Channel 2	24	Ground
3	AES3-id Input Channel 3	25	Ground
4	AES3-id Input Channel 4	26	Ground
5	AES3-id Input Channel 5	27	Ground
6	AES3-id Input Channel 6	28	Ground
7	AES3-id Input Channel 7	29	Reserved
8	AES3-id Input Channel 8	30	Reserved
9	Reserved	31	AES3-id Output Channel 1
10	Reserved	32	AES3-id Output Channel 2
11	Reserved	33	AES3-id Output Channel 3
12	Reserved	34	AES3-id Output Channel 4
13	Reserved	35	AES3-id Output Channel 5
14	Reserved	36	AES3-id Output Channel 6
15	Reserved	37	AES3-id Output Channel 7
16	Ground	38	AES3-id Output Channel 8
17	Ground	39	Reserved
18	Ground	40	Reserved
19	Ground	41	Reserved
20	Ground	42	DARS Reference
21	Ground	43	Reserved
22	Ground	44	Reserved

## Multi-way audio connector (balanced)



1. Left positive signal (hot)
2. Left negative signal (cold)
3. Signal ground (shared with left and right)
4. Right positive signal (hot)
5. Right negative signal (cold)

## Specifications

See product front and rear diagrams for details of product I/O.

### A2-7312 breakout unit

Connectors: HD44 (interconnect interface)  
BNC: 8 x inputs, 8 x outputs, DARS Reference

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Analog input/output impedance: 75 Ohm

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Formats: AES3-id audio

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Voltage Level: 1V p-p

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Dimensions: 44x482mm (1.75"x19")

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Weight: 1.1 Kg

### A2-7322 format converter

Connectors: HD44 (interconnect interface)  
Screw Terminals: 8 x in 8 x out (stereo pairs)  
BNC: (75 Ohm DARS Reference)

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Analog input/output impedance: 600 Ohm Balanced

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Formats: AES3 to audio, audio to AES3



Voltage Level:	6V p-p input maximum (8.75dBu). 0dBFS AES3 input equating to 8.75 dBu analog output
THD + noise:	-97dB (A to D), -93dB (D to A), at 48 kHz
Dimensions:	44x482x200 mm (1.75"x19"x7.9")
Weight:	3.0 kg

## A2-7342 Format converter

Connectors:	HD44 (interconnect interface) XLR sockets: 8 x input (4x stereo pairs) XLR plugs: 8 x outputs (4x stereo pairs) BNC: (75 Ohm DARS Reference)
Analog input/output impedance:	600 Ohm Balanced
Formats:	AES3 to audio, audio to AES3
Voltage Level:	0dbFS = 6V p-p (8.75 dBu) AES3 input maximum
THD + noise:	-100dB (A to D), -97dB (D to A), at 48 kHz
Bandwidth:	30 Hz to 22.5 kHz (-3dB)
Dimensions:	44x482x200 mm (1.75"x19"x7.9")
Weight:	2.7 kg

## Regulatory compliance

Main unit conforms to FCC, CE, RoHS

## Environmental

Operating Temperature 0° to +50° C (+32° to +122° F)

Operating Humidity 10% to 85%, Non-condensing

Storage Temperature -10° to +70° C (+14° to +158° F)

Storage Humidity 10% to 85%, Non-condensing

## Power requirement

Actual current consumption varies between units.

Internal over-voltage & over-current protection.

External power supply specification: 12v DC regulated up to 3 Amp PSU, with a 2.5mm locking center-pin positive DC power connector. A non-locking 2.5mm DC power connector will also fit.

## Control methods

The units can be used independently with required sample frequency set by DIP switches on rear (for appropriate units).

## Accessories included

An HD44 link cable is shipped with each A2-73XX unit.

## Mechanical

Size (H x W x D): 1.75" x 19" x 7.9" (44 x 482 x 200mm)

Weight (Net): <6.6 lbs (<3 kg) (unit types vary)

## Optional accessories

RM110: Long arm rack ears for 24" to 32" deep racks.

## Contact us

[tvone.com](http://tvone.com)

[info@tvone.com](mailto:info@tvone.com)

Support NCSA: [tech.usa@tvone.com](mailto:tech.usa@tvone.com)

Support EMEA: [tech.europe@tvone.com](mailto:tech.europe@tvone.com)

Support Asia: [tech.asia@tvone.com](mailto:tech.asia@tvone.com)

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